

Claims

- [c1] In the preceding example 1, the procedure of producing an embossed crystallized glass flat panel is illustrated. What is claimed is:
- [c2] 1. A method of producing an embossed crystallized glass article, comprising the steps of: Preparing small size of crystallizable glass bits, each of said bit having a property that when heat-treated at certain temperature, needle-like β -wollastonite crystals are formed, said crystals extending from the surface into the interior of the glass body. Packing the said glass bits into mold to form a layer. Heat-treating the said glass article, so all the individual small glass bits being fusion-bonded along. Each of said fusion-bonded small glass bits having needle-like β -wollastonite crystals extending from the surface into the interior of the glass body. Heat-treating the said glass article at liquidus temperature, so the liquidated glass flow on the surface would fill in all spaces among fusion-bonded glass bits. Stop the process before the glass bits on the surface are completely flattened down. Polishing the finished glass article to remove sharp bumps and results embossed surface pat-

tern.

- [c3] 2.The crystallized glass article claimed in claim 1, wherein said glass bits of crystallizable glass consist essentially of SiO_2 , Al_2O_3 , and CaO .
- [c4] 3.The crystallized glass article claimed in claim 1, wherein said glass bits of crystallizable glass consist essentially of SiO_2 , Al_2O_3 , CaO , and ZnO .
- [c5] 4.The crystallized glass article claimed in claim 1, wherein said glass bits of crystallizable glass have size of less than 10 mm.
- [c6] 5.The crystallized glass article claimed in claim 1, wherein said heat-treating at liquidus temperature for only limited time, so all spaces among glass particles are filled in by the glass flow but the glass bits on the surface are not completely flatten down.
- [c7] 6.The crystallized glass article claimed in claim 1, wherein said polishing is to remove limited top portion of bumps.
- [c8] 7.A method of producing an un-even crystallized glass article, comprising the steps of: Preparing small size of crystallizable glass bits, each of said bit having a property that when heat-treated at certain temperature, nee-

dle-like β -wollastonite crystals are formed, said crystals extending from the surface into the interior of the glass body, and flat crystallizable/crystallized glass pieces. Packing the said glass bits and pieces into mold to form a layer by placing the flat glass pieces on the mold over the mold release agent then fill up with glass bits. The glass bits may/may not cover the surface of the glass pieces. Heat-treating the said glass article, so all the individual small glass bits and glass pieces being fusion-bonded. Each of said fusion-bonded small glass bits and glass pieces having needle-like β -wollastonite crystals extending from the surface into the interior of the glass body. Heat-treating the said glass article at liquidus temperature, so the liquidated glass flow on the surface would fill in all spaces among fusion-bonded glass bits. Stop the process before the surface of the glass article is completely even. Polishing the finished glass article for smooth or embossed un-even surface.

[c9] 8. The crystallized glass article claimed in claim 7, wherein said glass bits of crystallizable glass consist essentially of SiO_2 , Al_2O_3 , and CaO .

[c10] 9. The crystallized glass article claimed in claim 7, wherein said glass bits of crystallizable glass consist essentially of SiO_2 , Al_2O_3 , CaO , and ZnO .

- [c11] 10.The crystallized glass article claimed in claim 7,
wherein said glass pieces have certain thickness and are
not limited to be any form of glass materials as long as
its density do not change in process.
- [c12] 11.The crystallized glass article claimed in claim 7,
wherein said glass bits of crystallizable glass have size of
less than 10 mm.
- [c13] 12.The crystallized glass article claimed in claim 7,
wherein said heat-treating at liquidus temperature for
only limited time, so all spaces among glass particles are
filled in by the glass flow and the surface of the glass ar-
ticle is not completely even.
- [c14] 13.The crystallized glass article claimed in claim 7,
wherein said polishing is to produce either smooth or
embossed un-even surface of the glass article.